

GENERAL MOTORS DAEWOO AUTOMOTIVE & TECHNOLOGY CO.

EXECUTIVE ORDER A-357-0005
New Passenger Cars, Light-Duty Trucks
and Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Div. 26, Part 5, Chap. 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 & 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED:

That the following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	TEST GROUP	VEHICLE TYPE		EXHAUST EMISSION TANDARD CATEGORY	FUEL TYPE					
2005	5GDXV02.0D04	Passenger Car	E	"LEV II" Ultra Low mission Vehicle (LEV II	EXH / ORVR	EVAP	EXH	EVAP	C!'	
A THE STATE OF THE				ULEV)	120K	150K	Α	E	Gasoline	
No.	ECS & S	SPECIAL FEATURES		EVAPORATIVE FAMILY (EVAF) DISPLACEMENT (L)						
1	WU-TWC,TWC,		5GDXR0	115E0L						
•		•	*							
*				*		2				
*		•	*							

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.

BE IT FURTHER RESOLVED:

That the exhaust and the evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's "NMOG Fleet Average" (PC or LDT) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

BE IT FURTHER RESOLVED:

That for the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California Exhaust Emission Standards and Test Procedures for 2001 and Subsequent Model PC, LDT and MDV).

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this

Allen Loons, Chief

Mobile Source Operations Division

GENERAL MOTORS DAEWOO AUTOMOTIVE & TECHNOLOGY CO.

EXECUTIVE ORDER A-357-0005
New Passenger Cars, Light-Duty Trucks
and Medium-Duty Vehicles

ATTACHMENT

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS

(For bi-, dual- or flexible-fueled vehicles, the STD and CERT in parentheses are those applicable to testing on gasoline test fuel.)

	NMOG FLEET NMOG @ RAF=* AVERAGE [g/mi] CH4 RAF = *		I THINGS OF	CH4=methane; NMOG≈non-CH4 organic gas; NMHC=non-CH4 hydrocarbon; CG=carbon monoxide; NOx=oxides of nitrogen; CH4=methane; NMOG=non-CH4 hydrocarbon; CG=carbon monoxide; NOx=oxides of nitrogen; CG=carbon monoxide; NOx=oxides										
CERT	STD	NMOG	NMHC	I NMHC	I HOL-SOUR; PC	∟ io/mri≖runi	ning ioss: UK	VK lovosilor	(dispensed)	on-hoard rat	ueling vapor r		ram; mg= milliç	ram
0.040	0.049	CERT [g/mi]	CERT [g/mi]	[g/mi]	CO [g/mi]		NOx [g/ml]		HCHO [mg/mi]		PM [g/mi]		Hwy NOx [g/ml]	
			[8]		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
	@ 50K	0.026	•	0.040	0.6	1.7	0.02	0.05	0.5	8.	•	*	0.04	0.07
	@ UL	0.037	*	0.055	1.0	2.1	0.04	0.07	0.6	. 11.	•	*	0.06	0.09
	@ 50°F & 4K	0.051	*	0.080	0.6	1.7	0.04	0.05	9.0	16.				

CO [g/mi] @ 20°F & 50K		The state of the s		Ox [g/mi] posite)		g/mi] posite)		:+NOx [US06]		g/mi] i06]		C+NOx [SC03]	CO [g/mi] :031
(0) 21	U'F & SUK		CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD	CERT	STD
CERT	2.6	SFTP @ 4000 miles	*	*	*	•	0.02	0.14	0.1	8.0	0.07	0.20	0.8	2.7
STD	10.0	SFTP @ * miles	*	*	*	•	•	•	•	•	*	•	*	*

Evaporative Family		al + Hot Soak est) @ UL		al + Hot Soak est) @ UL		ig Loss ille) @ UL	On-Board Refueling Vapor Recovery (grams/gallon) @ UL		
	CERT	STD	CERT	STD	CERT	STD	CERT	STD	
5GDXR0115E0L	0.39	0.50	0.34	0.65	0.01	0.05	0.14	0.20	
•	•	*	*		•	*	* .		
*	*	*	*	*	*	*		*	
•		•	•	•	*		•	*	

^{* =} not applicable; UL=useful life; PC=passenger car; LDT=light-duty truck; MDV=medium-duty vehicle; ECS= Emission Control System; STD= Standard; CERT= Certification; LVW=loaded vehicle weight; ALVW=adjusted LVW; LEV=low emission vehicle; TLEV=transitional LEV; ULEV=utra LEV; SULEV=super ULEV; TWC=3-way catalyst; ADSTWC=adsorbing TWC; WU=warm-up catalyst; OC=oxidizing catalyst; OZS=oxygen sensor; HO2S=heated O2S; AFS/HAFS=air-fuel ratio sensor / heated AFS; EGR=exhaust gas recirculation; AIR=secondary air injection; PAIR=pulsed AIR; MFI= multiport fuel injection; SFI=sequential MFI; TBI=throttle body injection; DGI=direct gasoline fuel injection; TC/SC= turbo/super charger; CAC=charge air cooler; OBD (F)/(P)=ful/partial on-board diagnostic; DOR=direct ozone reducing; prefix 2=parallel; (2) suffix=series; CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85='85%' Ethanol Fuel;

2005 MODEL YEAR: VEHICLE MODELS INFORMATION

MAKE	MODEL	EVAPORATIVE FAMILY	ECS NO.	ENGINE SIZE (L)	IN-I COMPI (*=N/A or: A/E=exi	EDIATE JSE LIANCE full in-use; 1. / evap. Ite in-use)	PHASE-IN STD.	OBD II
			1.		EXH	EVAP]	
SUZUKI	FORENZA	5GDXR0115E0L	1	2	Α	E	SFTP	Partial
SUZUKI	RENO	5GDXR0115E0L	1	2	Α	E	SFTP	Partial